



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/810,977

03/25/2004

Jian Qin

15105.1

9633

23556 7590 05/14/2008
KIMBERLY-CLARK WORLDWIDE, INC.
Catherine E. Wolf
401 NORTH LAKE STREET
NEENAH, WI 54956

EXAMINER

STEPHENS, JACQUELINE F

ART UNIT

PAPER NUMBER

3761

MAIL DATE

DELIVERY MODE

05/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/810,977
Filing Date: March 25, 2004
Appellant(s): QIN ET AL.

Bryan R. Rosiejka
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9//24/07 appealing from the Office action mailed 3/23/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,989,586	Bashaw et al.	11-1976
5,494,611	Howe	2-1996
6,217,890	Paul et al.	4-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 22-26, 27, 29-32, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashaw et al. USPN 3989586 in view of Howe USPN 5494611.

As to claims 22, 24-26, 34, and 35, Bashaw discloses a permanently wettable superabsorbent material and method of making the absorbent comprising: treating the superabsorbent material with a surfactant solution (col. 2, lines 9-11; col. 4, lines 35-68). Bashaw discloses the crosslinked copolymer of maleic anhydride is further activated with methanol, dried and processed in fiber form (col. 4, lines 1-21). The surfactant solution includes an amount of water sufficient to solvate the surface of the superabsorbent material but less than sufficient to cause significant swelling of the superabsorbent material (col. 4, lines 1-5). Bashaw discloses surfactants (col. 4, lines 35-68) similar to the surfactants taught in the present specification page 6, line 25 through page 7, line 7. In particular, Bashaw discloses cetyl dimethylamine oxide. Howe shows that cetyl dimethylamine oxide is an equivalent structure known in the art of lauryl dimethylamine oxide (Howe col. 4, lines 48-61). Because these two surfactants are art-recognized equivalents at the time the invention was made, one of ordinary skill

in the art would have found it obvious to substitute cetyl dimethylamine oxide for lauryl dimethylamine oxide, which applicant discloses is a suitable surfactant having the claimed functional groups.

Regarding the Flotation Time procedure and the Surface Tension Test and the examiner's interpretation of the tests and performance characteristics of the instant apparatus claims, because the structure recited in the reference is substantially identical to that of the claims of the instant invention, the test claimed properties or functions are presumed to be obvious.

As to claim 23, Bashaw discloses the superabsorbent material is a fibrous form (col. 2, lines 6-45).

As to claim 27, see Bashaw col. 2, lines 6-8.

As to claim 29, see Bashaw col. 4, lines 35-68.

As to claim 30, see Bashaw col. 3, lines 57-59 and col. 4, lines 21-29.

As to claim 31, Bashaw see Example 1.

As to claim 32, Bashaw discloses the surfactant is applied to the superabsorbent material when the superabsorbent material is in powder form, which the examiner interprets to be in a solvated state, as the copolymer is solubilized in the solvent to form the powdered copolymer (col. 5, lines 23-27).

4. Claims 28, 33, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bashaw in view of Howe as applied to claims 22 and 34 above and further in view of Paul et al. USPN 6217890.

As to claim 28, Bashaw/Howe discloses the present invention substantially as claimed. However, Bashaw/Howe does not disclose the claimed group of materials. Paul discloses high absorbency materials in the claimed group as a natural alternative to synthetic high absorbency materials (col. 25, lines 25-40). Therefore, because the natural materials as disclosed in Paul are art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the natural materials for the synthetic material, such as maleic anhydride disclosed in the Bashaw reference.

As to claims 33 and 36, Bashaw/Howe discloses the paper product is highly absorbent (col. 7, lines 18-20). However, Bashaw/Howe does not specifically disclose the fiber in a disposable absorbent product as claimed. Paul discloses a similar treated superabsorbent material for use in a diaper comprising a liquid-permeable topsheet 22, a backsheet 20 attached to the topsheet, and an absorbent structure 24 made with a treated superabsorbent fiber positioned between the topsheet and the backsheet for the benefit of having highly absorbent material in a relatively thin absorbent article (Paul col. 24, line 52 through col. 25, line 52). It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the invention of Bashaw/Howe

into a disposable absorbent article as claimed, since the invention of Bashaw/Howe provides a highly absorbent article, which both references teach is desired.

(10) Response to Argument

Applicant's arguments filed 9/24/07 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner has relied on Howe for a teaching of a functional equivalent surfactant. Howe clearly shows that lauryl dimethylamine oxide and cetyl dimethylamine oxide are art-recognized equivalents as they are both used as surfactant solutions.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant argues Bashaw is directed to a method for mixing a dispersion of a copolymer in its acid form and subject to additional processing with an aqueous solution and an alkali and the copolymer in acid form is not a superabsorbent material as required by independent claims 22 and 34 of Applicant's invention. However, Bashaw discloses the final salt form of the copolymer is a water-insoluble and highly water-swallowable material (col. 4, lines 1-6). The 'comprising' language used in the independent claims is inclusive or open-ended and does not exclude additional unrecited elements, compositional components, or steps. Applicant argues Bashaw does not teach that the surfactant has been applied to a superabsorbent material as a surfactant solution. However, the argument addresses a process of making the article rather than the end structure. How the compound is applied does not patentability distinguish the *structure* over the prior art. There is no evidence and/or comparison of any unexpected result in terms of the claimed structure compared to the structure disclosed in the prior art.

Applicant argues Bashaw teaches away from permanently attaching the surfactant to the copolymer. However, it is noted that permanently attaching the surfactant to the copolymer is a method of making the structure and further is not recited in the rejected claim(s). What is claimed is a permanently wettable

superabsorbent, which Bashaw provides. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant maintains the argument that Bashaw teaches an aqueous surfactant solution which has a water content of between 95% and 99.998% unlike the surfactant solution of Applicant's invention (which contains between only 0.5% and 30% water by weight of the solvent). Not only is applicant is relying on features which are not recited in the rejected claims, but the claims previously recited an aqueous surfactant solution. As previously argued by the examiner, the surfactant solution of the present invention can contain up to 30% water and given the plain meaning of aqueous, the solution being made with water is an aqueous solution irrespective of the percentage of water in the composition.

Applicant has argued that the superabsorbent material of the present invention has a hydrophobic surface based on the process by which the superabsorbent material is made, such as by a spinning process. Applicant argues that the superabsorbent material of Bashaw would tend to be hydrophilic since it is pulverized or chopped, which has the effect of exposing additional hydrophilic groups located below the surface of the copolymer, contributing to its hydrophilic nature. Applicant argues the superabsorbent of the present invention is hydrophobic because it is produced in a spinning process and the process results in a different fiber than the fiber resulting from a pulverization process. Although the specification mentions the surface of a SAF is

made hydrophobic during the fiber spinning process, a web made according to a spinning process is not claimed. If Applicant intends to prove the materials are different and this causes significant swelling in the Bashaw invention, then the materials should be compared. If Applicant intends to demonstrate the processing of the superabsorbent results in differences in wettability, then the processes should be compared.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jacqueline F. Stephens/
Primary Examiner
Art Unit 3761

Conferees:

/Angela D Sykes/

Supervisory Patent Examiner, Art Unit 3762

Angela Sykes
Supervisory Primary Examiner
Art Unit 3762

Tatyana Zalukaeva
Supervisory Primary Examiner
Art Unit 3761
/Tatyana Zalukaeva/

Application/Control Number:
10/810,977
Art Unit: 3762

Page 11

SPE, Art Unit 3761